

```

① <smil>
②   <head>
③     <layout>
④       <root-layout width="320" height="480" />
⑤       <region id="v" top="5" />
⑥       <region id="t" top="10" />
⑦       <region id="i" top="20" />
⑧     </layout>
⑨   </head>
⑩   </body>
⑪   <par>
⑫     <video region="v" src="rtsp://server/sample.mp4/track-ID=1 begin="3s"
end="20s" />
⑬     <audio src="rtsp://server/sample.mp4/track-ID=2 begin="3s" end="20s" />
⑭     <text region="t" src="http://server/text.txt" dur="10s" />
⑮     <image region="i" src="http://server/image.jpg" dur="10s" />
⑯   </par>
⑰ </body>
⑱ </smil>

```

**FIG. 1**  
(PRIOR ART)

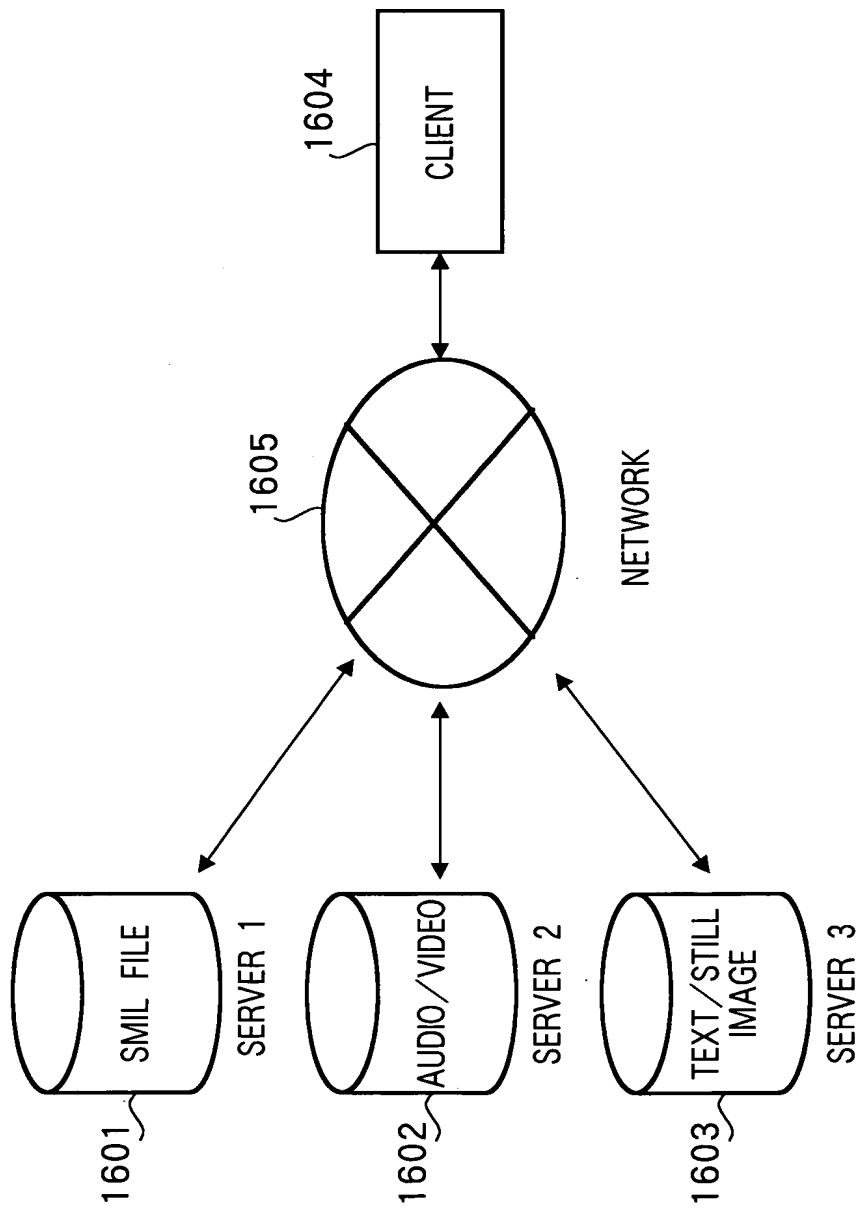


FIG. 2  
(PRIOR ART)

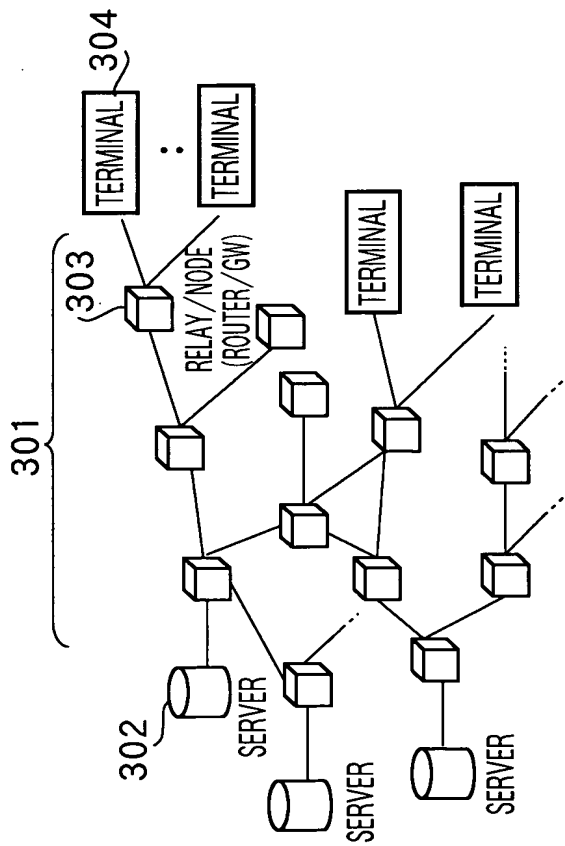


FIG. 3A

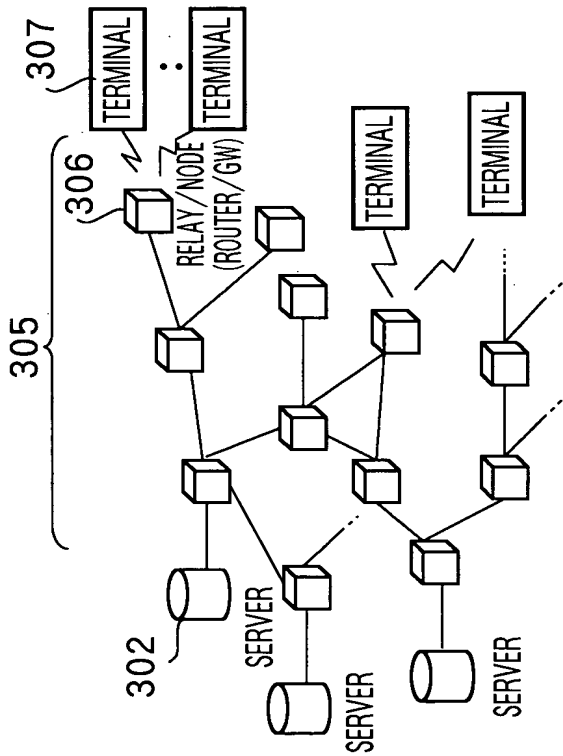
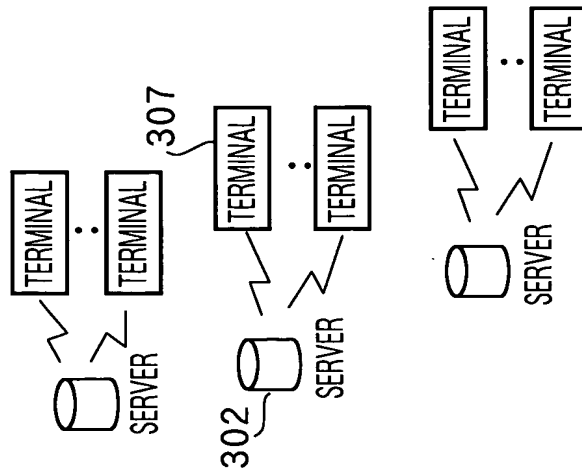


FIG. 3B

FIG. 3C



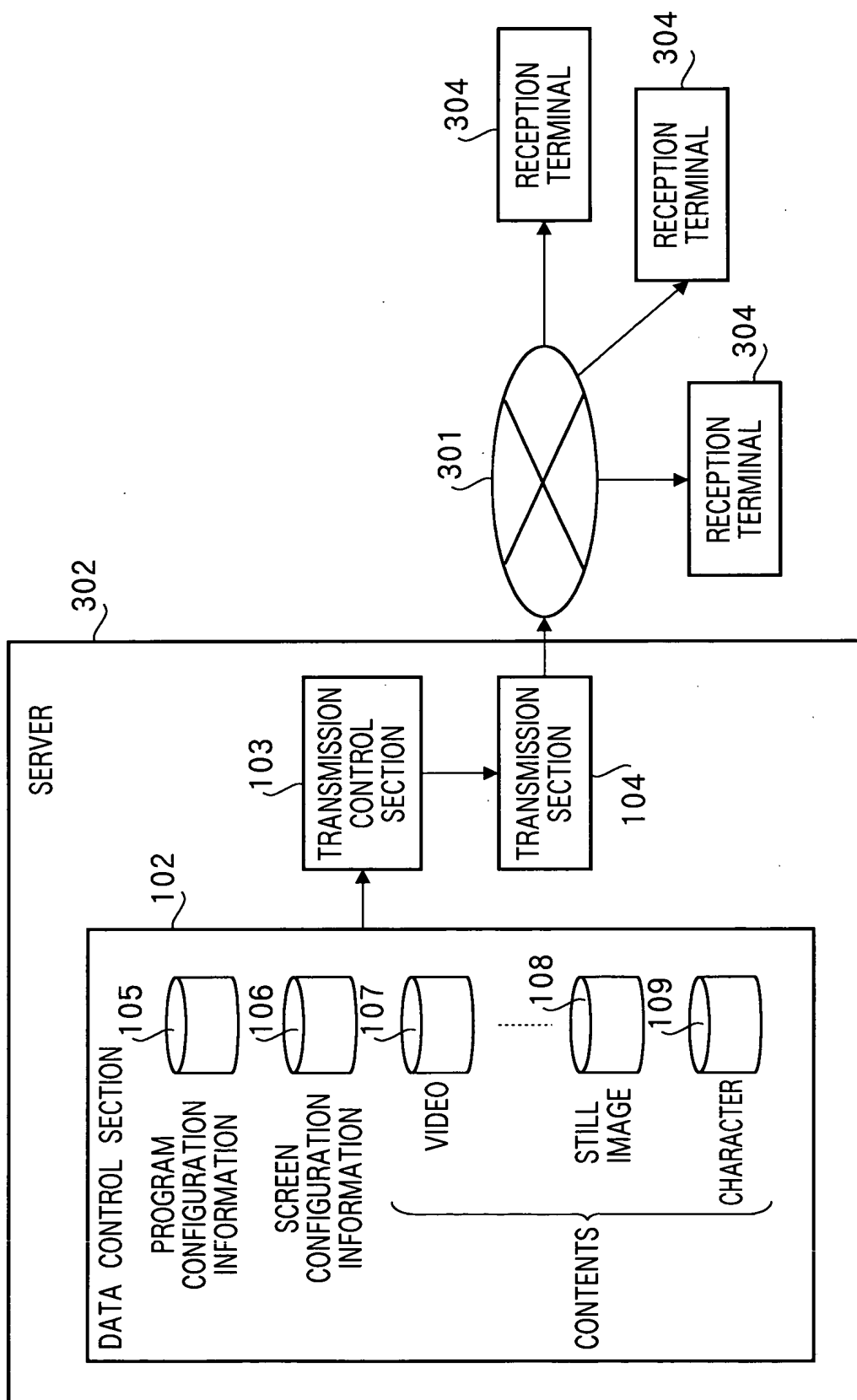


FIG. 4

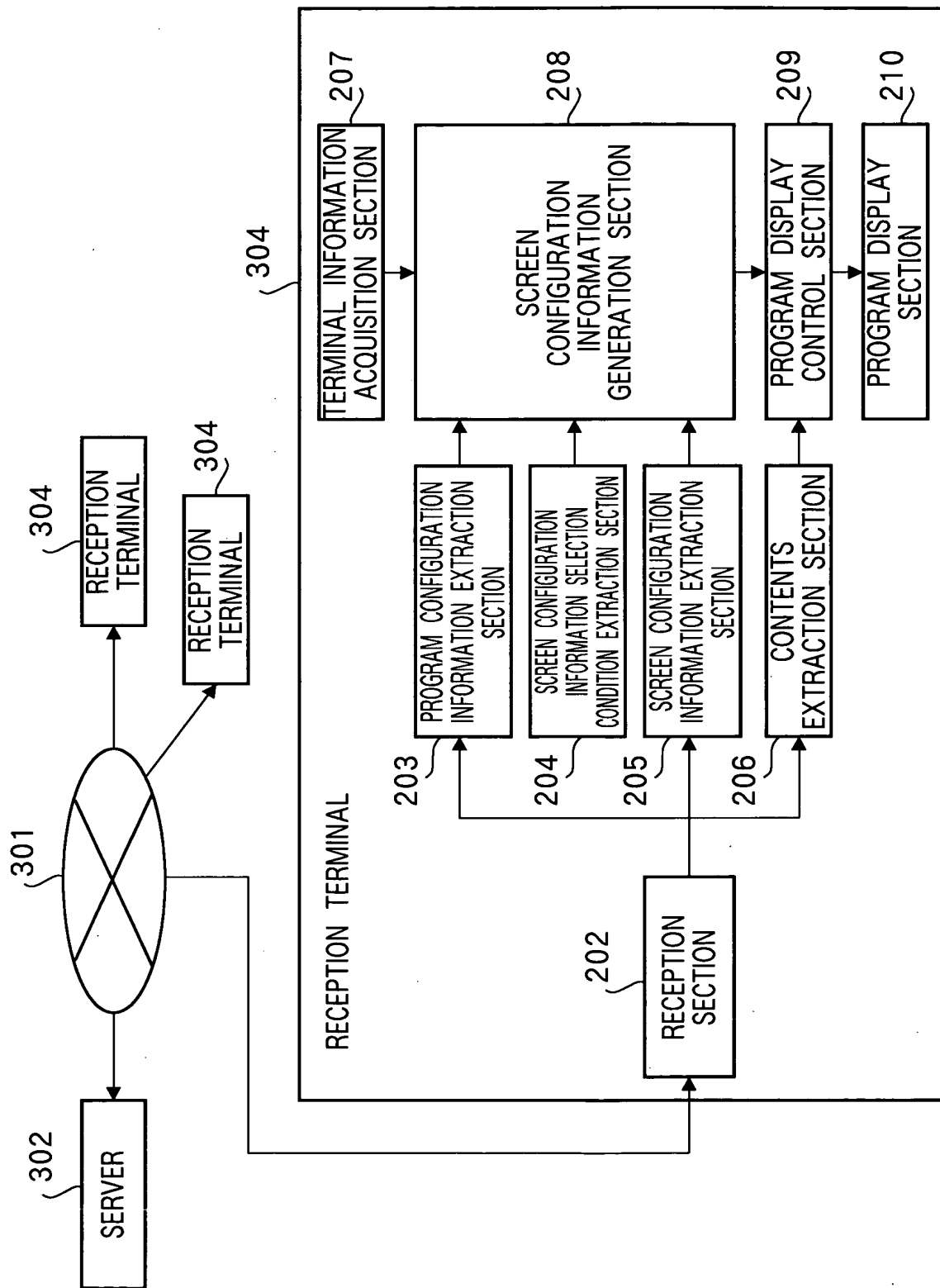


FIG. 5

400

v=0	
o=mhandley 2890844526 2890842807 IN IP4 126.16.64.4	
s=SDP Seminar	
i=A Seminar on the session description protocol	
u=http://www.cs.ucl.ac.uk/staff/M.Handley/sdp.03.ps	
e=mjh@isi.edu (Mark Handley)	
c=IN IP4 244.2.17.12/127	
t=2873397496 2873404696	
a=recvonly	401
m=audio 49170 RTP/AVP 0	402
a=id:audio1	403
m=video 51372 RTP/AVP 31	
a=id:video1	404
m=application 32416 udp wb	
a=id:text1	405
m=application 32417 udp wb	
a=id:image1	406
m=application 32418 udp wb	
a=id:layout1	407

FIG. 6

500

layout1

```
<smil>
<head>
  <layout>
    <root-layout width="320" height="480" />
    <region id="video" top="100" left="10" width="300" height="300" />
    <region id="text" top="0" left="10" width="300" height="100" />
    <region id="image" top="400" left="10" width="300" height="80" />
  </layout>
</head>
<body>
  <par>
    <video region="video" src="video1" />
    <audio src="audio1" />
    <text region="text" src="text1" />
    
  </par>
</body>
</smil>
```

..... 501  
..... 502  
..... 503  
..... 504

..... 505  
..... 506  
..... 507  
..... 508

FIG. 7

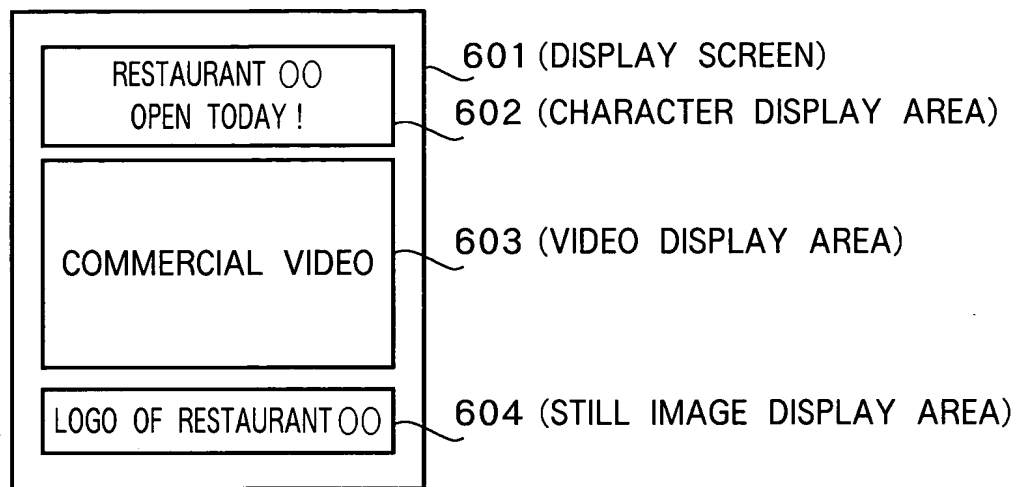


FIG. 8A

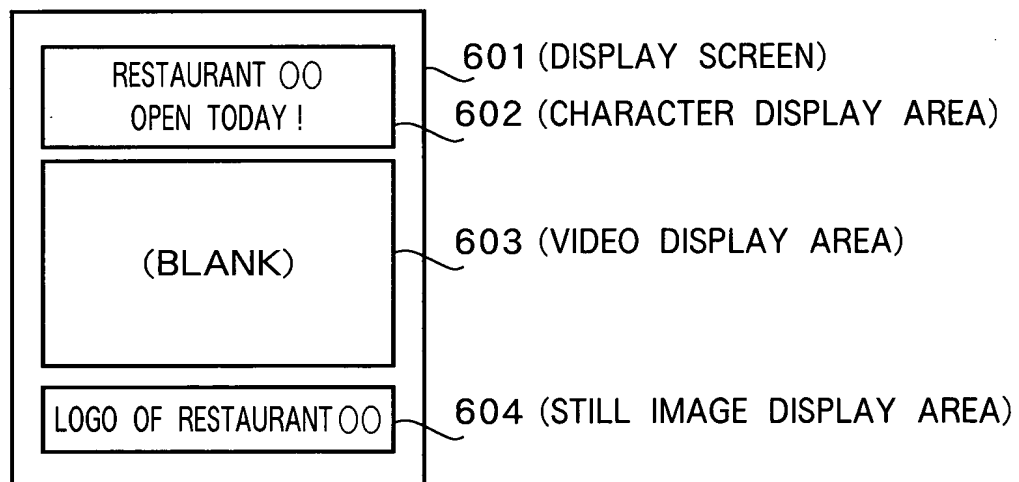


FIG. 8B

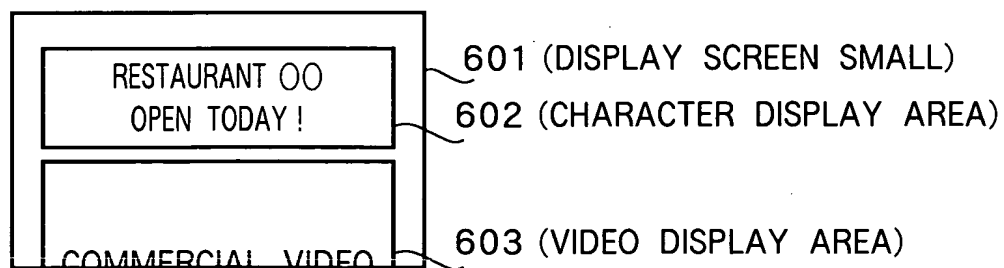


FIG. 9

800

layout2

```
<smil>
<head>
<layout>
  <root-layout width="320" height="480" />
  <region id="video" top="100" left="10" width="300" height="300" />
  <region id="text" top="0" left="10" width="300" height="100" />
  <region id="image" top="400" left="10" width="300" height="80" />
</layout>
</head>
<body>
  <par>
    <text region="video" src="text2" />
    <audio src="audio1" />
    <text region="text" src="text1" />
    
  </par>
</body>
</smil>
```

501  
502  
503  
504  
805  
506  
507  
508

FIG.10A

810

layout3

12c12

```
< <text region="video" src="text2" />
---
> <video region="video" src="video1" />
```

811  
812  
813

FIG.10B

900

```

v=0
o=mhandley 2890844526 2890842807 IN IP4 126.16.64.4
s=SDP Seminar
i=A Seminar on the session description protocol
u=http://www.cs.ucl.ac.uk/staff/M.Handley/sdp.03.ps
e=mjh@isi.edu (Mark Handley)
c=IN IP4 244.2.17.12/127
t=2873397496 2873404696
a=recvonly
m=audio 49170 RTP/AVP 0
a=id:audio1
m=video 51372 RTP/AVP 31
a=id:video1
m=application 32416 udp wb
a=id:text1 ..... 901
m=application 32417 udp wb
a=id:text2 ..... 902
m=application 32418 udp wb
a=id:image1 ..... 903
m=application 32419 udp wb
a=id:layout2 ..... 904
a=bandwidth: - 96000 ..... 905
a=priority:3 ..... 906
m=application 32420 udp wb
a=id:layout3 ..... 907
a=diff:layout2 ..... 908
a=bandwidth:64001 - 384000 ..... 909
a=priority:4 ..... 910

```

FIG.11

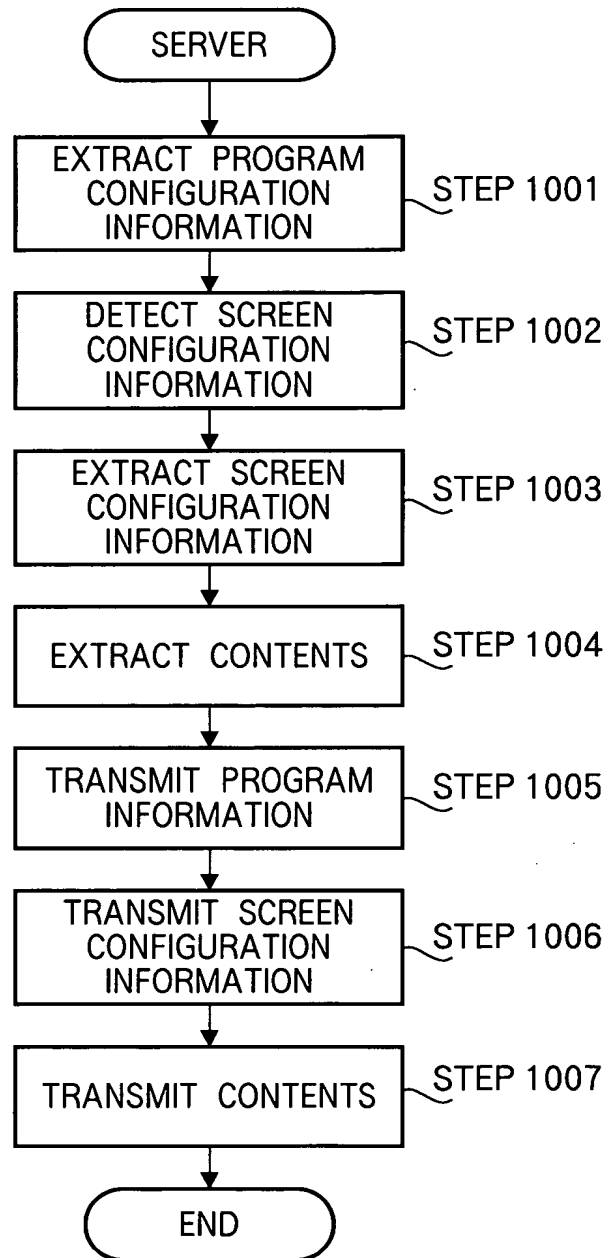


FIG.12

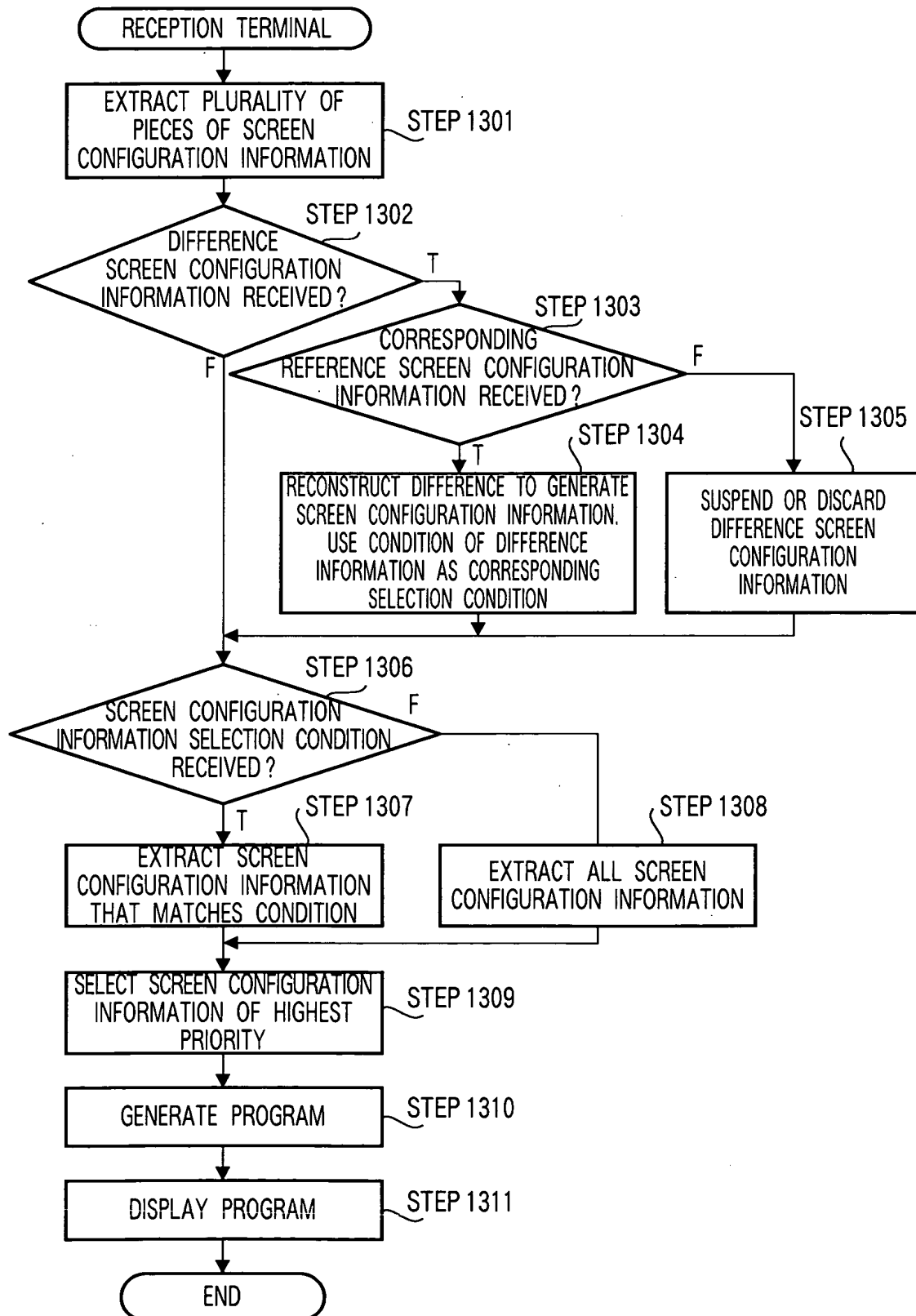


FIG.13

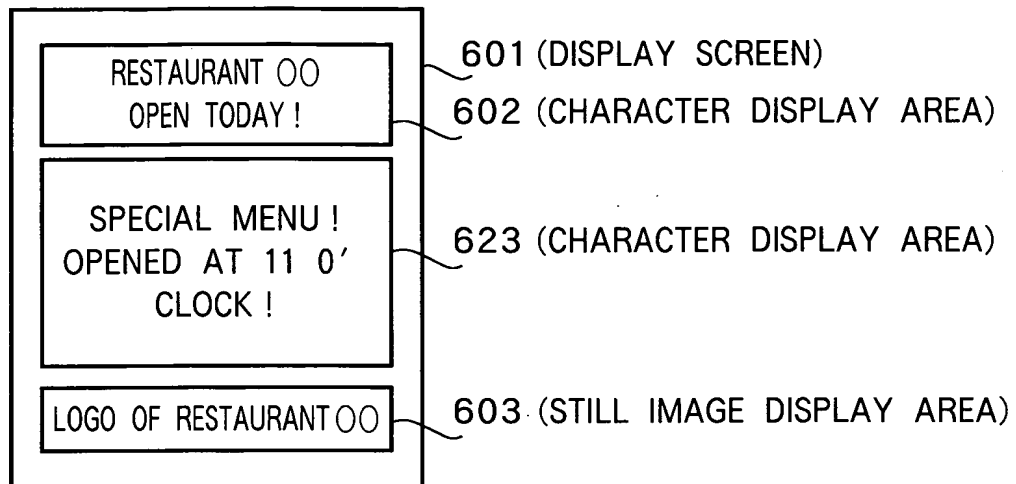


FIG.14

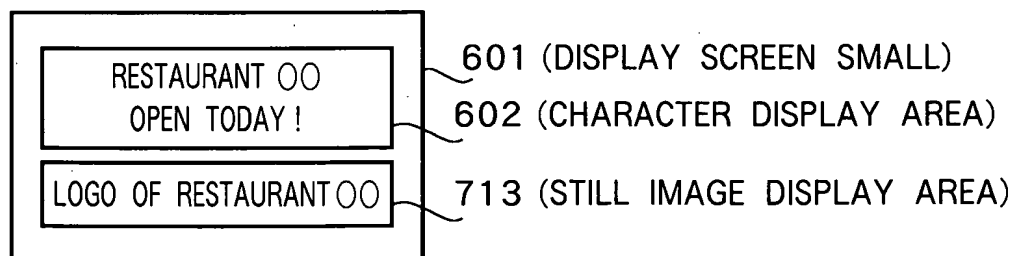


FIG.15

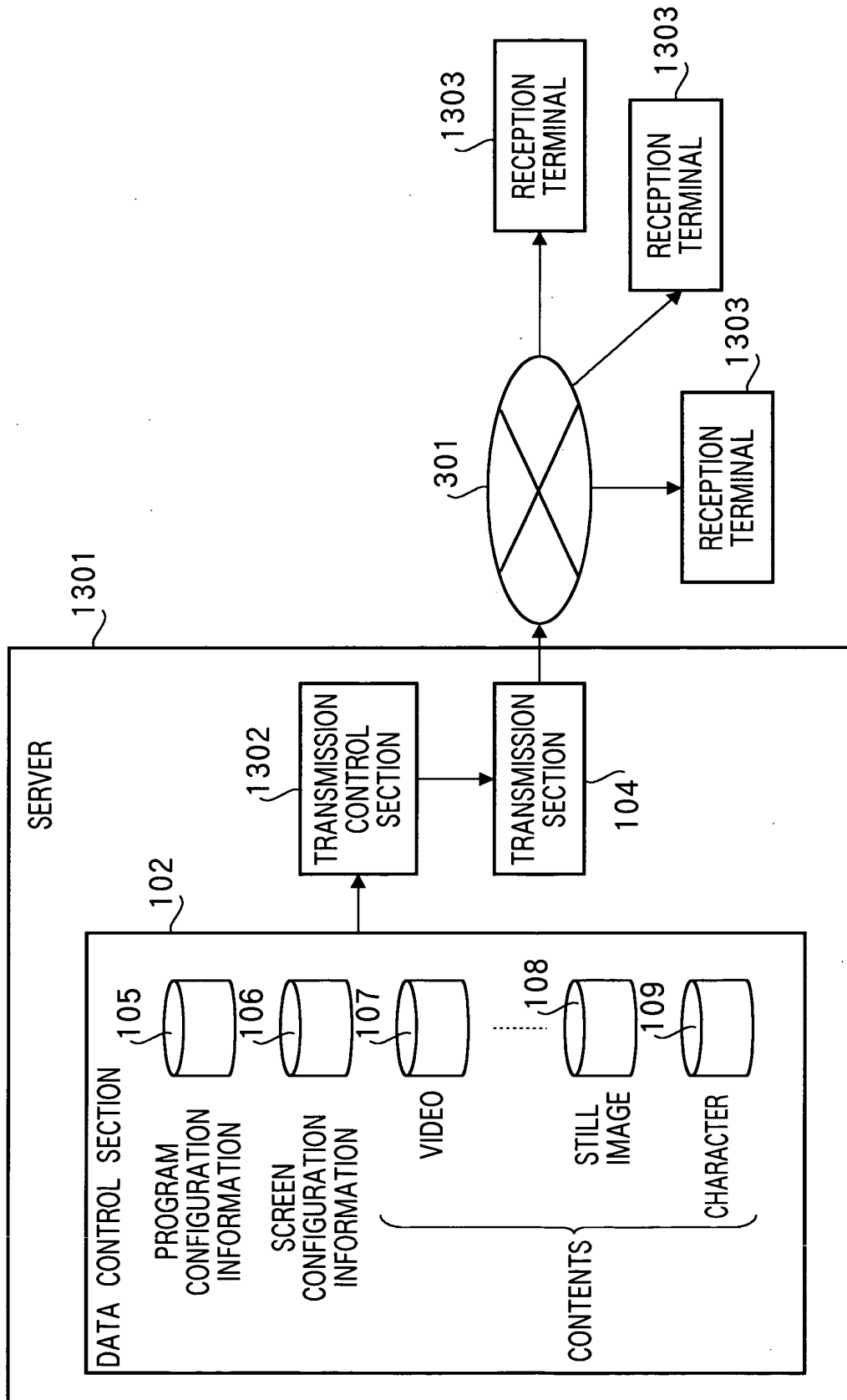


FIG.16

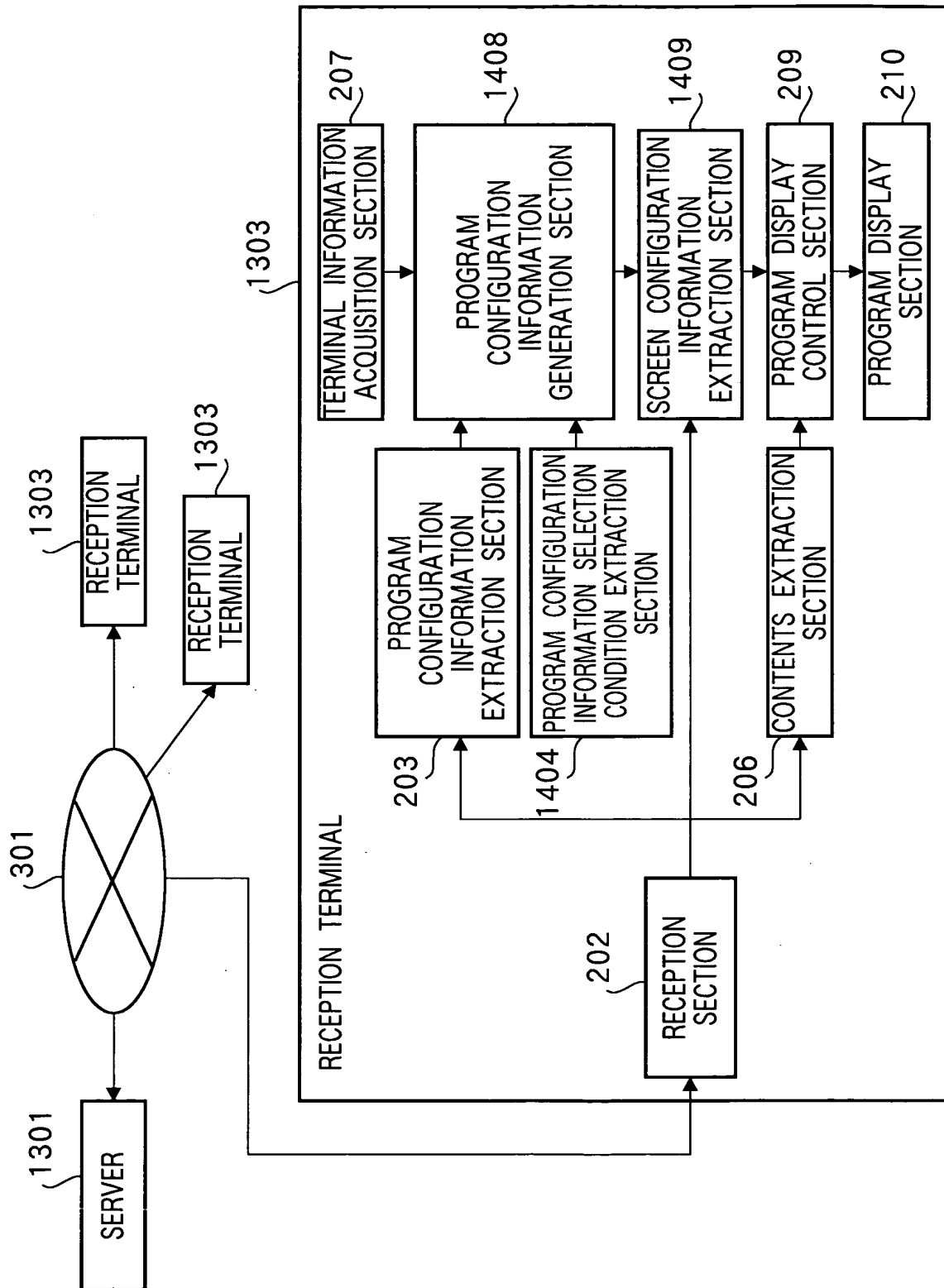


FIG.17

16/20

1600

```

v=0
o=mhandley 2890844526 2890842807 IN IP4 126.16.64.4
s=SDP Seminar
i=A Seminar on the session description protocol
u=http://www.cs.ucl.ac.uk/staff/M.Handley/sdp.03.ps
e=mjh@isi.edu (Mark Handley)
c=IN IP4 244.2.17.12/127
t=2873397496 2873404696
a=id:program1 ..... 1001
a=bandwidth:64001 - 384000 ..... 1002
a=priority:4 ..... 1003
a=recvonly
m=audio 49170 RTP/AVP 0
a=id:audio1 ..... 1004
m=video 51372 RTP/AVP 31
a=id:video1 ..... 1005
m=application 32416 udp wb
a=id:text1 ..... 1006
m=application 32417 udp wb
a=id:image1 ..... 1007
m=application 32420 udp wb
a=id:layout1 ..... 1008

```

FIG.18

1700

```
v=0
o=mhandley 2890844526 2890842807 IN IP4 126.16.64.4
s=SDP Seminar
i=A Seminar on the session description protocol
u=http://www.cs.ucl.ac.uk/staff/M.Handley/sdp.03.ps
e=mjh@isi.edu (Mark Handley)
c=IN IP4 244.2.17.12/127
t=2873397496 2873404696
a=id:program2 ..... 1101
a=bandwidth: — 96000 ..... 1102
a=priority:3 ..... 1103
a=recvonly
m=application 32416 udp wb
a=id:text1 ..... 1104
m=application 32417 udp wb
a=id:text2 ..... 1105
m=application 32418 udp wb
a=id:image1 ..... 1106
m=application 32419 udp wb
a=id:layout2 ..... 1107
```

FIG.19

1800

```
v=0
o=mhandley 2890844526 2890842807 IN IP4 126.16.64.4
s=SDP Seminar
t=2873397496 2873404696
a=id:program3 ..... 1201
a=diff:program2 ..... 1202
a=bandwidth:64001 — 384000 ..... 1203
a=priority:4 ..... 1204
a=recvonly
m=audio 49170 RTP/AVP 0
a=id:audio1 ..... 1205
m=video 51372 RTP/AVP 31
a=id:video1 ..... 1206
m=application 32417 udp wb
a=delete:text2 ..... 1207
m=application 32420 udp wb
a=id:layout1 ..... 1208
m=application 32419 udp wb
a=delete:layout2 ..... 1209
```

FIG.20

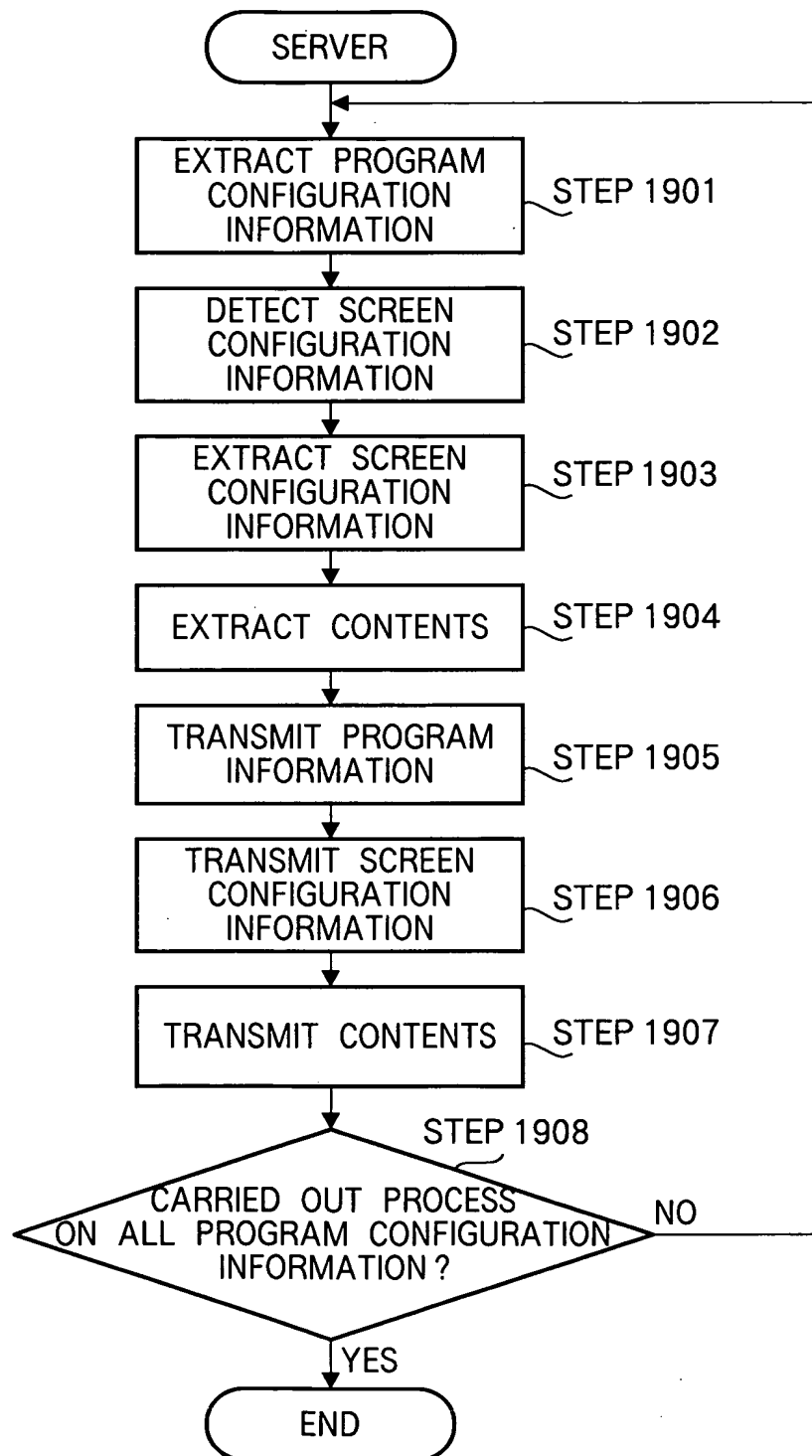


FIG.21

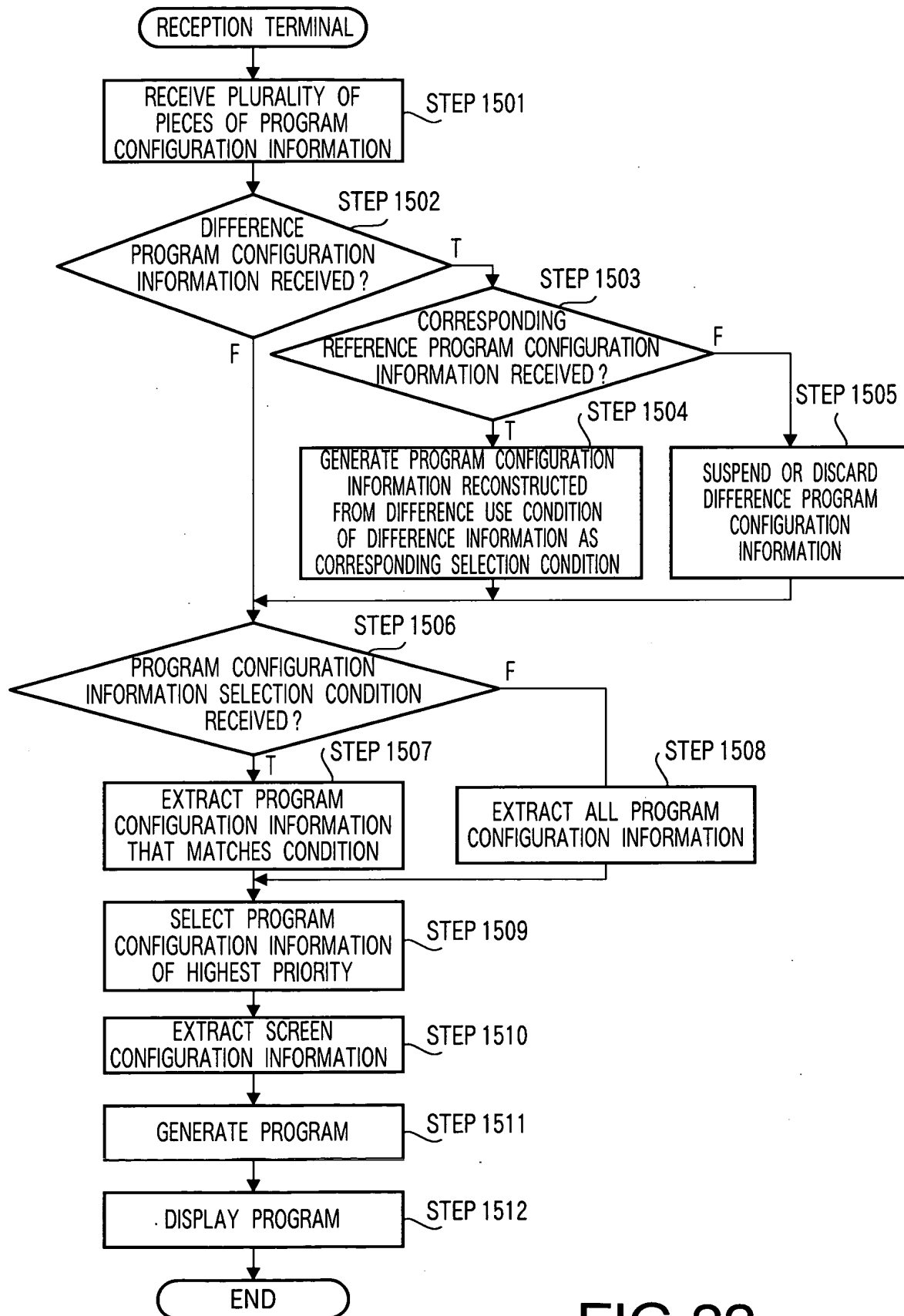


FIG.22